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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,418	06/04/1999	KATSUAKI YAMANOI	Q54672	2787

7590 05/20/2003

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WASHINGTON, DC 200373202

EXAMINER

CHU, KIM KWOK

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 05/20/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

17

Office Action Summary

Application No.

09/325,418

Applicant(s)

YAMANOI ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Reconsideration filed on 2/24/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7 and 10-19 is/are allowed.
- 6) ☒ Claim(s) 1-5,8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 16, 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. Claims 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Ottesen (U.S. Patent 5,463,758).

Ottesen teaches an information recording unit having all the elements and means as recited in claims 1. For example, Ottesen teaches the following:

(a) as in claim 1, a memory 70 for storing data provided for recording (Fig. 3; column 3, lines 53-55);

(b) as in claim 1, a record device for recording the data stored in the memory 70 on to a recording medium 74 and 75 (Fig. 4);

(c) as in claim 1, the data being recorded in at least two different areas on the record medium (Fig. 4, column 4, lines 17-21); and

(d) as in claim 1, a decision device 82 for determining the data as valid data during the recording of the data on the record medium 74 and 75 (Fig. 3; column 3, lines 60-65).

3. Claims 2-5, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ottesen (U.S. Patent 5,463,758).

Ottesen teaches an information recording unit having all the elements and means as recited in claims 2-5, 8 and 9. For example, Ottesen teaches the following:

(a) as in claim 2, a memory 70 for storing data provided for recording (Fig. 3);

(b) as in claim 2, a record device for intermittently recording the stored data in the memory 70 onto a recording medium 74 and 75 (Fig. 4);

(c) as in claim 2, a valid-data decision device 82 for determining whether the recorded data is valid (Fig. 3);

(d) as in claim 2, the data being recorded in at least two different areas on the record medium 74 and 75 (Fig. 4, column 4, lines 17-21);

(e) as in claim 2, the valid-data decision device 82 determines one valid data among the recorded data of the different areas A1 and A0 on the record medium 74 and 75 as valid data during the recording of the data on the record medium 74 and 75 (Fig. 3; column 3, lines 60-65);

(f) as in claim 3, a record control device 64 for controlling the record device, wherein the record control device 64 provides a control command for the record device to record a predetermined quantity of data stored in the memory 70

at a first recording location A1 on the record medium 74 and 75 and also provides a control command for the record device to read the predetermined quantity of data at a second recording location A0 different from the first recording location A1 after the predetermined quantity of data is recorded at the first recording location A1 (Fig. 4); and

(g) as in claim 4, a blank area search device for searching a blank area on the record medium 74 and 75, wherein the first recording location A1 has a predetermined address of a blank area searched by the blank area search device, and the second recording location A0 has an address different from the predetermined address of the searched blank area (Fig. 4; blank area on the record medium is a non-recorded block/zone. Therefore, searching addresses of blocks/zones which are not yet occupied is a necessary requirement for a typical recording process);

(h) as in claim 5, a data update device for updating data address information recorded in a control area (header) on the record medium 74 and 75 for controlling data addresses, wherein the data update device updates a data address of which data has been decided to be valid by the valid-data decision device (Fig. 8, steps 322 and 318); and

(i) as in claim 8, the data update device updates a data address in a control area on the record medium 74 and 75 so

that the data address becomes blank when the valid-data decision device has determined that data corresponding to the data address is not valid (Fig. 8; steps 322 and 318 update blank addresses);

(j) as in claim 9, the record device continues recording into the first recording location A1 until the remaining data quantity in the memory reaches a predetermined quantity (Fig. 4); and

(k) as in claim 9, the recording device continues recording into the second recording location A0 until the record device has recorded data originally identical with the data that has been recorded into the first recording location A1 (Fig. 4, mirrored filed recording process).

Allowable Subject Matter

4. Claims 6, 7 and 10-19 are allowable over prior art.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 6, 7, 14, 18 and 19, the prior art of record fails to teach or fairly suggest a recording unit having a vibration/servo detection device. The recording unit has a record device where data is recorded in at least two different areas. In addition, a valid-data decision device for determining whether the data is valid according to the flags stored by first and second storage devices. The first storage device stores a first flag indicating the occurrence of a vibration in relation to a predetermined address. The second storage device stores a second flag in relation to another predetermined address so as to indicate the decision of the valid-data decision device.

As in claims 10, 11 and 15, the prior art of record fails to teach or fairly suggest a recording unit where data is recorded four times and a valid-data decision device for determining whether the data is valid based on a result of a disturbing vibration during each of the four recording operations.

The features indicated above, in combination with the

other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Polyzois et al. (5,432,922) is pertinent because Polyzois teaches a mirrored storage disks.

Anderson et al. (5,422,761) is pertinent because Anderson teaches a disk drive with redundant recording.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for
entry. Or:

(703) 746-6909, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor
(Receptionist).

Any inquiry of a general nature or relating to the status
of this application should be directed to the Group
receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kim CHU
whose telephone number is (703) 305-3032 between 9:30 am to
6:00 pm, Monday to Friday.

14 5/15/03
Kim-Kwok CHU
Examiner AU2653
May 15, 2003

(703) 305-3032

William Korzuch
WILLIAM KORZUCH
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